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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,541	09/23/2003	Caroline Le-Pierrard	14XT00219 (135960)	2097
23413	7590	06/17/2005	EXAMINER	
CANTOR COLBURN, LLP			KIKNADZE, IRAKLI	
55 GRIFFIN ROAD SOUTH			ART UNIT	PAPER NUMBER
BLOOMFIELD, CT 06002			2882	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/668,541

Applicant(s)

LE-PIERRARD ET AL.

Examiner

Irakli Kiknadze

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/23/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claims 1, 24 and 36 are objected to because of the following informalities:

Claim 1, line 6 and claim 36, line 7, " opening the body " perhaps should read as -- opening in the body --.

Claim 24 is missing.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Hansen et al. (US Patent 6,556,654 B1).

With respect to claim 1, Hansen teaches (Figs. 1 and 2) an X-ray emitter comprising: an anode (24); a cathode (26); a vacuum evacuated body (22) in which the

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anode (24) and the cathode (26) are placed; an opening in the body; and a high-voltage connector (as a cathode insulator (50) with a high-voltage cable and clamp system (100)) placed in the opening, the connector closing off the opening in a vacuum-tight manner, thereby subjecting the connector to a vacuum on one side of the cathode and to ambient air on an opposite side (column 7, lines 14-41 and column 8, lines 5-33).

With respect to claims 2 and 3 Hansen teaches that the connector supports the cathode. A cathode terminal (110) acts as an intermediate spacer between the connector and the cathode (such as cathode terminals (110)) (Figs. 1 and 2; column 8, lines 5-22).

With respect to claims 4-10, Hansen teaches that the vacuum evacuated body is made of copper (metal having an atomic number 29) (column 1; lines 39-42).

With respect to claims 11-15, Hansen teaches that the body (22) comprises a cylindrical portion forming the opening, the connector being placed and fastened into the cylindrical portion (Figs. 1 and 2; column 8, lines 5-22).

With respect to claims 16-21, Hansen teaches that the connector is made from a ceramic (column 8, lines 20-22).

With respect to claims 25-29, Hansen teaches that the connector is made from an eclectically insulating oxide (column 8, lines 20-22).

With respect to claims 30-35, Hansen teaches that the connector composed of electrically insulating ceramic (column 8, lines 20-22). Using the electrically insulating ceramics for the high-voltage connectors, especially aluminum-based ceramics, for

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example based on alumina or aluminum nitride, for good dielectric properties, high thermal conductivity and low thermal expansion coefficient are well known in the art.

With respect to claim 36, Hansen teaches (Figs. 1 and 2) an X-ray apparatus comprising: an X-ray emitter comprising: an anode (24); a cathode (26); a vacuum evacuated body (22) in which the anode (24) and the cathode (26) are placed; an opening in the body (column 7, lines 14-27); and a high-voltage connector (as a cathode insulator (50) with a high-voltage cable and clamp system (100)) placed in the opening, the connector closing off the opening in a vacuum-tight manner; thereby subjecting the connector to a vacuum on one side of the cathode and to ambient air on an opposite side (column 8, lines 5-22); and means for receiving the X-rays and capable of supplying an output signal representative of an object placed in the path of the X-rays (column 7, line 65 – column 8, line 4).

With respect to claim 37, Hansen teaches that the connector is made of an insulating oxide (column 8, lines 20-22).

With respect to claim 38, Hansen teaches providing a body (22) capable of being made vacuum-tight; forming an opening in the body; placing an anode (24) and a cathode (26) in the body (22) (column 7, lines 14-27); placing a high-voltage connector in the body; fastening the connector into the opening, the connector closing off the opening in a vacuum-tight manner; and evacuating the body so that the body is subjected to a vacuum on the side of the cathode and to atmospheric pressure or ambient air on the opposite side (column 8, lines 5-22).

With respect to claim 39, Hansen teaches that the connector is made of an insulating oxide (column 8, lines 20-22).

Conclusion


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irakli Kiknadze whose telephone number is 571-272-2493. The examiner can normally be reached on 9:00- 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Irakli Kiknadze
June 8, 2005

IK


EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER